REMARKS

In the Office Action dated November 6, 2003, claims 1-8, 10-12, 16-27, 29-31 and 35-38 were rejected under 35 U.S.C. §102(a) as being anticipated by Yanof et al. Claims 9 and 28 were rejected under 35 U.S.C. §103(a) as being unpatentable over Yanof et al in view of Hardy et al. Claims 13-15 and 32-34 were rejected under 35 U.S.C. §103 (a) as being unpatentable over Yanof in view of McNeirney et al.

These rejections are respectfully traversed for the following reasons.

A method and apparatus disclosed and claimed in the present application are for the purpose of aiding a physician during an interventional procedure to position a surgical item that is to be inserted into the patient to assist in the setting or healing of a fracture. The item may be, for example, a pin, a screw or a Kirschner wire. In the inventive method and apparatus, a volume dataset is acquired with an imaging modality, such as an x-ray imaging system, and an image of the subject is produced from this volume dataset. This image is displayed at a monitor and the position in the patient of the item to be inserted is marked in the displayed image. Using the marking in the displayed image, an association can be calculated between the marking in the image and corresponding physical (real) location at the patient. A location characterizing unit, such as a unit that generates a light beam, in one example, is then adjusted in position so that it characterizes a physical location at the patient corresponding to the marked location, so that the position can insert the item at the designated location at the subject.

Thus, the location that is characterized by the location characterizing unit is a real, physical location at the patient on the operating table, and is not a location that is characterized in an image or some other representation of the subject.

The Yanof et al reference, by contrast, discloses a method wherein the position of a minimally-invasive surgical instrument, that is inserted into a patient, is mixed into an image that is acquired before the surgical procedure. This reference does not at all concern producing any kind of location indicator in, at or on the actual subject on the operating table.

In the claims as originally filed, step (d) in independent claim 1 and the last claim element of independent claim 20 were intended to mean that the location characterizing unit characterizes a location that is physically at the subject on the operating table. This was the meaning that was intended to be conveyed by the phrase "in said subject" in claim 1 and the phrase "at said subject" in claim 20. The Examiner may have felt justified, however, in interpreting this claim language broadly and may have believed that generating a video image of the subject, and indicating a location in that video image, corresponds to characterizing a location "at said subject." The independent claims therefore have been amended to make clear that the characterization of the location at the subject means a physical characterization that is visible at the subject. This precludes claims 1 and 20 from reading on a device such as disclosed in the Yanof et al reference, wherein only indications in a video image are involved.

In view of these amendments, the Yanof et al reference does not disclose all of the method steps of independent claim 1 nor all of the elements of independent claim 20, and therefore does not anticipate either of those claims, nor any of the claims respectively depending therefrom.

Since the Yanof et al reference does not disclose or suggest the subject matter of either of independent claims 1 and 20, even if the subject matter of the Yanof et al reference were modified in accordance with the teachings of either Hardy et al or McNierney et al, the subject matter of the dependent claims that were respectively rejected based on the teachings of those secondary references still would not result. The subject matter of claims 9, 13-15, 28 and 32-34, therefore, would not have been obvious to a person of ordinary skill in the art based on the teachings of Yanof et al in view of either Hardy et al or McNierney et al.

All claims of the application are therefore submitted to be in condition for allowance, and early reconsideration of the application is respectfully requested.

Submitted by,

SCHIFF, HARDIN LLP

(Reg. 28,982)

CUSTOMER NO. 26574
Patent Department

6600 Sears Tower 233 South Wacker Drive

Chicago, Illinois 60606

Telephone: 312/258-5790 Attorneys for Applicant.

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